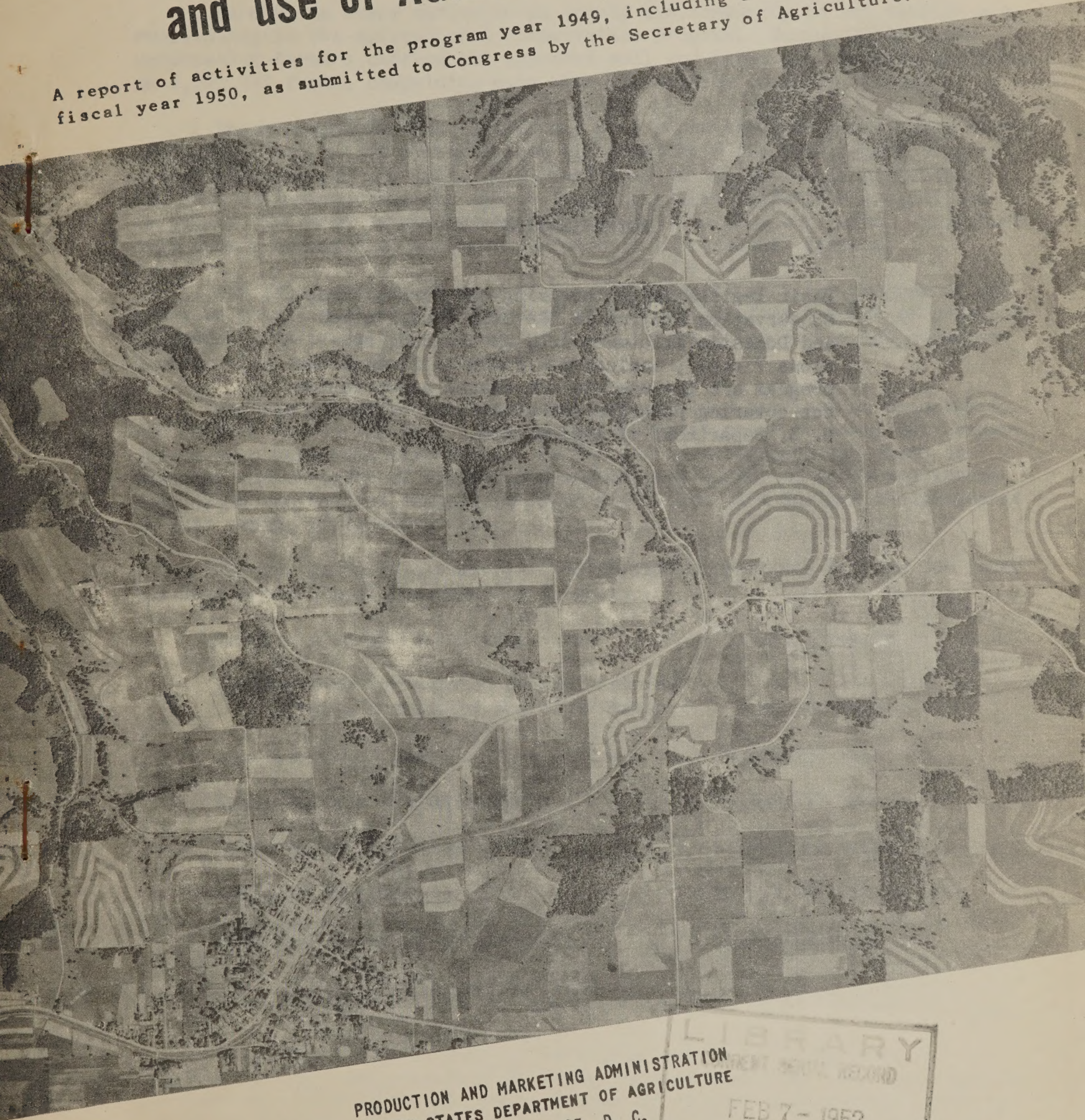


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Cap 5

CONSERVATION and use of AGRICULTURAL LAND RESOURCES

A report of activities for the program year 1949, including a financial report for the fiscal year 1950, as submitted to Congress by the Secretary of Agriculture.



PRODUCTION AND MARKETING ADMINISTRATION
UNITED STATES DEPARTMENT OF AGRICULTURE
Washington 25, D. C.
January 1951

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AUTHORIZATION

Basic legislation authorizing the Agricultural Conservation Program is the Soil Conservation and Domestic Allotment Act, as amended, sections 7 to 17, inclusive. Funds to finance the program are included in the annual appopriation act covering programs and activities of the U. S. Department of Agriculture.

CONSERVATION AND USE OF AGRICULTURAL LAND RESOURCES

Partners in Conservation

Farmers in every agricultural county and community in the country are cooperating in the Agricultural Conservation Program. During 1949, these cooperating farmers carried out approved soil and water conservation practices on 2,586,791 farms, comprising more than 296 million acres of cropland.

These practices were carried out on a share-the-cost basis. The cooperating farmer, on the average, paid for about half the out-of-pocket cost and in addition did the work. The investment of the Nation in protecting its soil and water resources and in building a more productive agriculture is paying dividends in maintaining high production from our farms. Continued high farm production is an important part of our national defense.

The 1949 program was essentially a continuation of the program of the previous year. Changes for 1949 came as the result of experience of previous programs. The practices carried out added to and strengthened the conservation carried out in the preceeding years.

Acreage allotments on a number of major crops provided an opportunity for farmers to use the land taken out of allotment crops to carry out conservation on a more intensive scale. Particular encouragement was given to increase the acreages of grasses and legumes. A survey of grass and legume seed needs and special emphasis on seed production gave further encouragement to this aspect of conservation.

The following is a summary of conservation practices carried out under the 1949 Agricultural Conservation Program:

| | |
|---|-------------------------|
| Seeding of pasture and range land | 5,035,975 acres |
| Earthen dams for erosion control (storage type), irrigation and stock water | 99,368 dams |
| Application of lime | 24,433,957 tons |
| Application of superphosphate | 3,109,792 tons |
| Green manure and cover crops | 17,590,658 acres |
| Standard terraces | 443,328,000 linear feet |
| Diversion terraces and ditches | 1,683,893 rods |

Contour farming:

| | |
|------------------------------|---------------------------|
| Close-sown crops | 2,539,575 acres |
| Intertilled crops | 3,336,249 acres |
| Stripcropping | 229,075 acres |
| Field stripcropping | 6,834,376 acres |
| Sod waterways | 2,387,259,000 square feet |
| Open drains | 3,240,718 acres |
| Enclosed drains | 477,841 acres |
| Land leveling | 653,594 acres |
| Irrigation ditches and dikes | 1,244,858 rods |
| Trees planted | 95,573 acres |

These practices were carried out in accordance with the provisions and policy of the legislation authorizing this program.

Section 7, of the Soil Conservation and Domestic Allotment Act reads:

"(a) It is hereby declared to be the policy of this Act also to secure, and the purposes of this Act shall also include, (1) preservation and improvement of soil fertility; (2) promotion of the economic use and conservation of land; (3) diminution of exploitation and wasteful and unscientific use of national soil resources; (4) protection of rivers and harbors against the results of soil erosion...."

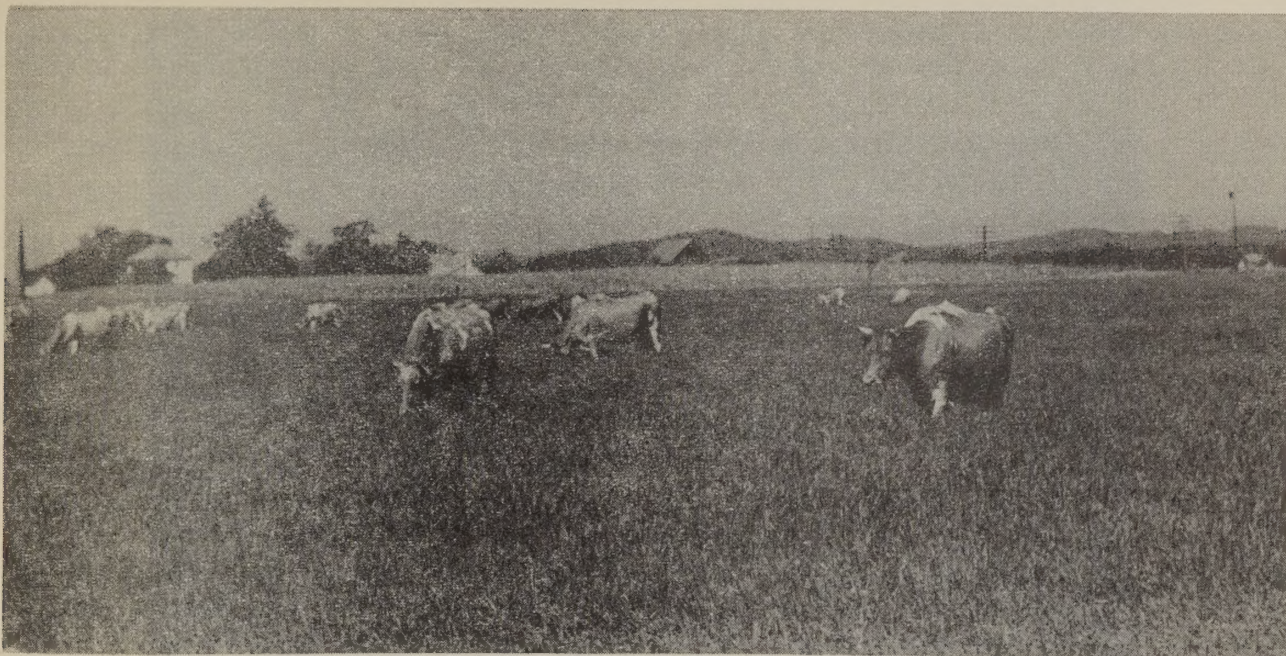
On the Farm

Although the conservation needs of an individual farm may differ materially from the needs of other farms, the basic objectives are the same. A few typical examples will show how these objectives are reached.

When Charles F. Hixon of Logan County, Okla., sat down with a representative of the Logan County Production and Marketing Administration Committee to work out a program for his farm, he was doing about the same as all other farmers who cooperated in the 1949 program. They checked over the conservation problems on the Hixon farm. Both of them were familiar with those problems.

In 1946, when Hixon came back from $3\frac{1}{2}$ years of service in the Navy, he had taken over this farm because he couldn't find a job. The place was run-down. It had been cropped to cotton, corn, and wheat until the humus was gone from the soil. Erosion was fast taking the topsoil. The 205 acres in this farm were becoming a liability instead of an asset to the community, the county, and the country.

ACP PRACTICES



Pasture improvement to hold and build the soil.



Terraces to control erosion and conserve moisture.

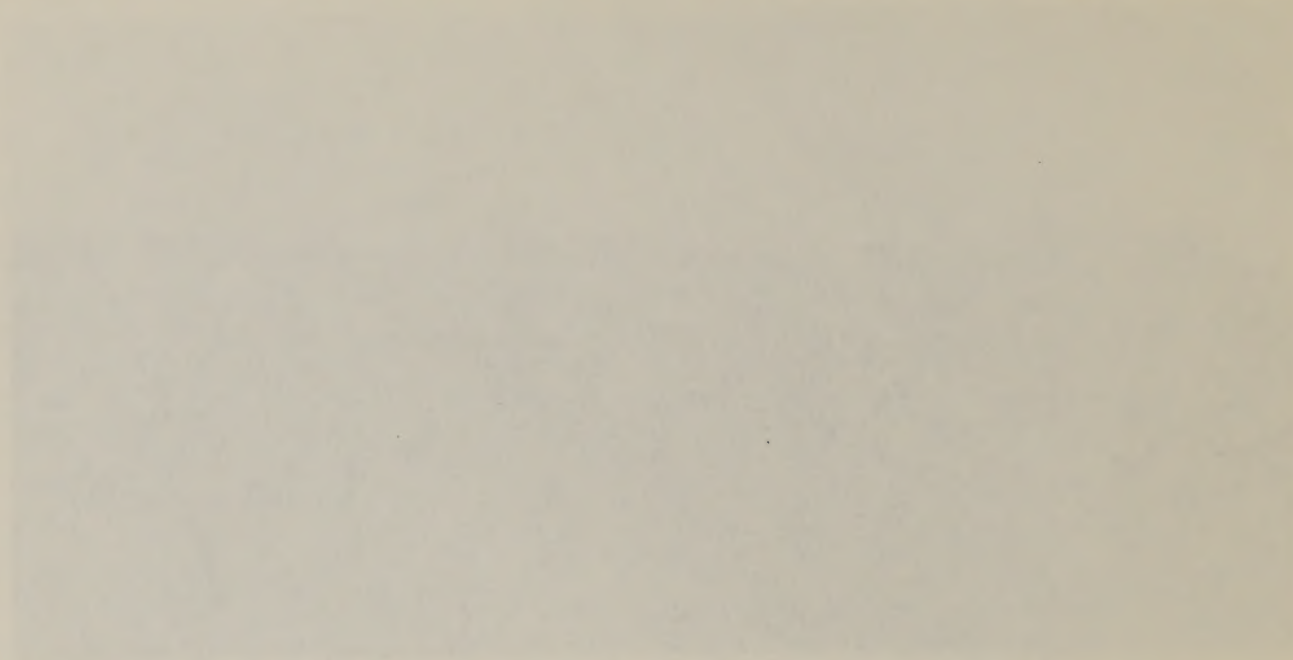


Figure 1. A photograph of the site.

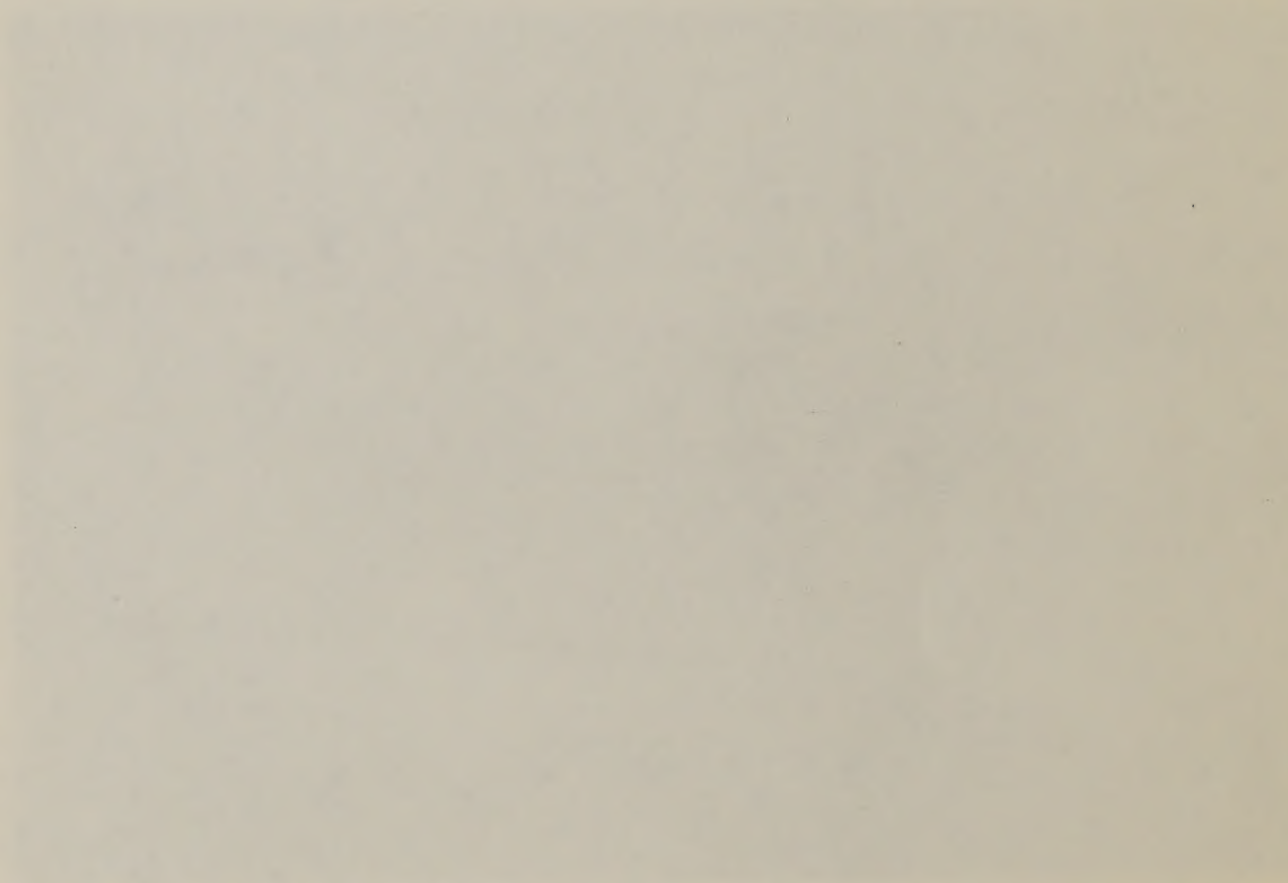
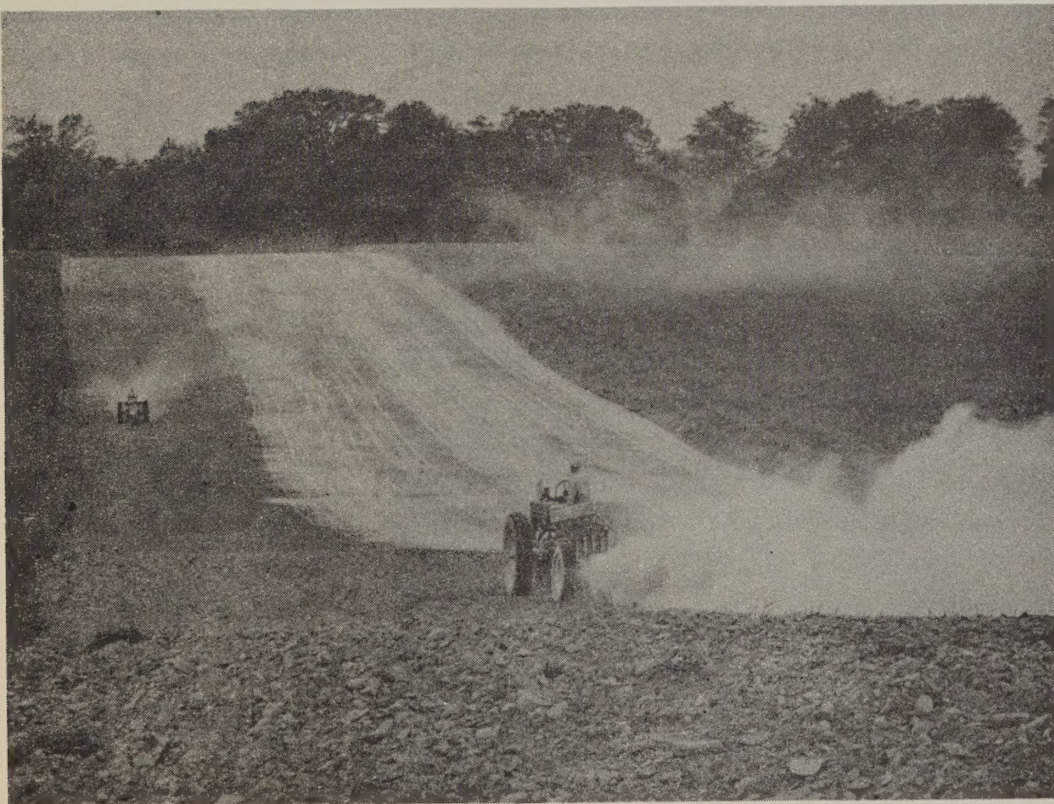


Figure 2. A photograph of the site.

ACP PRACTICES

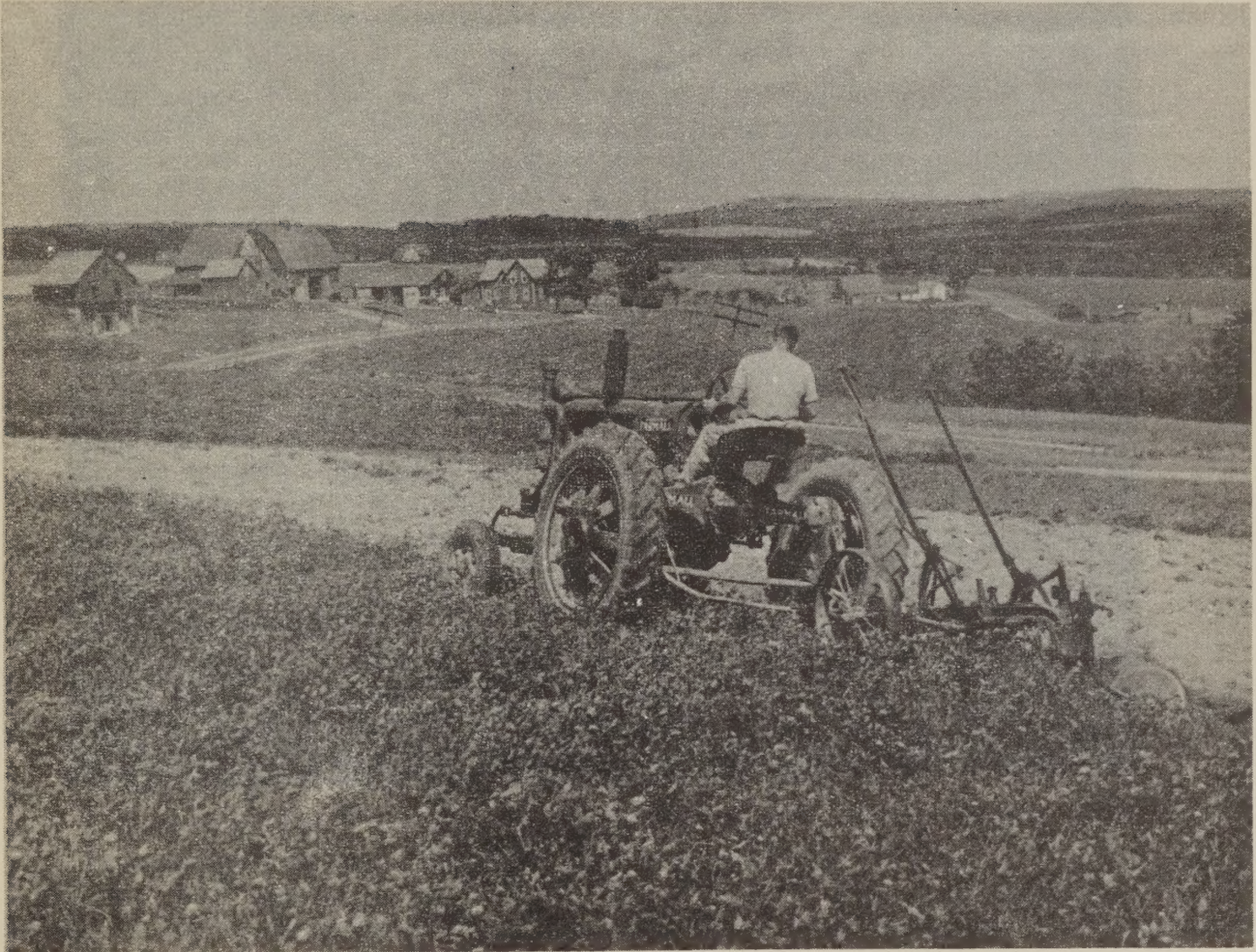


Contour strips to prevent sheet erosion and check run-off.



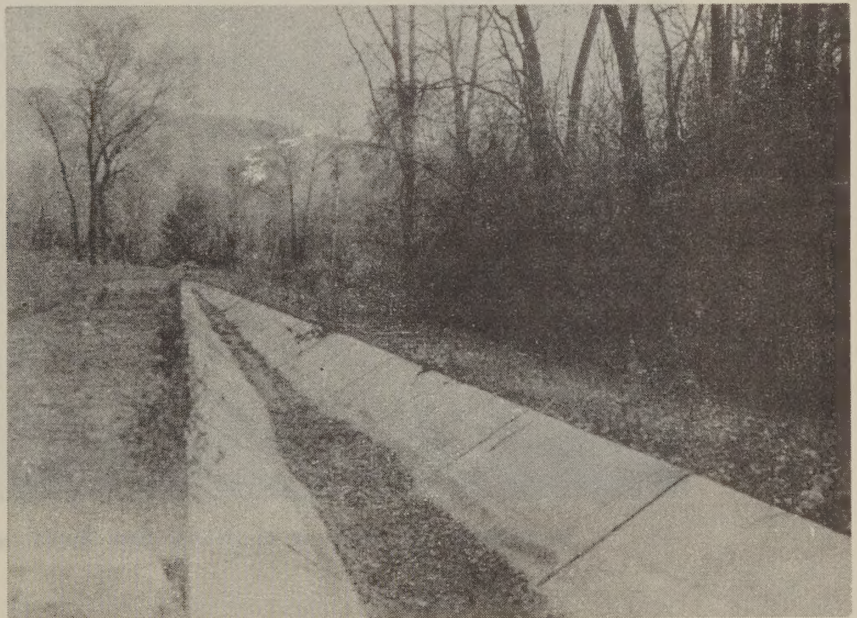
Lime to encourage the growth of grass and legumes.

ACP PRACTICES



Green manure to restore organic matter and strengthen soil structure.

Canal lining to prevent seepage and loss of precious irrigation water.



ACP PRACTICES



A thick covering of clover and grass protects the surface of the land from splash erosion - the roots hold the soil.



Trees protect the land and produce a crop of timber.

Hixon signed up in the GI farm-training course offered under the guidance of the Vocational Agriculture Program of Oklahoma. He went to the County PMA office and obtained the help of his County PMA Committee. A program was worked out to bring his farm back into production and heal the ravages of erosion.

So, when Hixon signed up to cooperate in the 1949 Agricultural Conservation Program he was carrying on his conservation work of the previous 3 years. He had seeded vetch, sweetclover, blue grama, buffalo grass, and cowpeas to hold the soil and to build up the depleted supply of organic matter. Lovegrass, ryegrass, and lespedeza had been planted on some of the steeper slopes.

But the land was deficient in phosphate. Before these grasses and legumes could be effective in protecting the soil, they had to have the necessary elements to grow and establish a good cover and a good root system.

He applied for assistance to help pay the cost of 3,760 pounds of 20 percent superphosphate to be used on his vetch. Another 1,200 pounds was needed on the sweetclover he had seeded the previous year. His cowpeas required 3,600 pounds. A few acres of alfalfa needed another 400 pounds. Then there was a field where he intended to turn cowpeas under as green manure, and he would need 1,520 pounds for that field.

He signed up to farm 24 acres of corn on the contour. He had done considerable terracing in the two previous years. He applied for assistance to aid in seeding additional lespedeza, vetch, and bluestem. He put down as a part of his conservation work the construction of 1,000 feet of small channel terraces.

By itself, each one of these practices seems insignificant. But when the conservation work carried out under the 1949 program is added to the work of the three previous years, the answer is a vastly improved farm. The gullies are nearly all healed over. There is little erosion. The dams are holding back run-off. The thick pasture sods are holding the soil. The humus and organic matter are being built back into the soil.

The herd of fat Herefords feeding contentedly on the pastures is evidence that this farm is on its way back. It is productive again. It will become more productive as the soil is enriched and built up.

This is just one of the 2,586,791 farms on which farmers carried out conservation practices under the 1949 Agricultural Conservation Program. It is not an outstanding example. It is typical of thousands of farms on which farmers are building assurance that the Nation will have enough food and fiber for a continuing defense program.

What It Adds Up To

It is doubtful that another farmer would have an identical program to the one carried out by this Logan County, Okla., farmer, but each in his own way is using the program to meet essential conservation needs on his farm. Donald Larcoque of Caledonia County, Vt., for instance, has taken a farm that in 1943 would not support 25 cows and transformed it into a farm that now supports 80 cows.

Manuel Neagle of Cache County, Utah, doubled the production of sugar beets on his farm by leveling his land and piping the irrigation water across a sandy piece of ground where he had been losing more than half the stream.

In Gage County, Nebr., cooperating farmers built more than a thousand dams to check floods and the resulting erosion.

In Arizona, a group of Indians cooperating in a pooling agreement constructed small dams and terraces to hold back the waters of the flash storms. Now this water produces grass and crops instead of carrying silt into Lake Mead.

Farm by farm, erosion has been checked, humus has been restored, the productivity of the land has been built up.

From 1936 through 1949, farmers cooperating in the Agricultural Conservation Program have carried out the following soil and water conservation practices to help maintain this country's productive agriculture:

Seeded 45,837,893 acres of pasture and range land

Constructed 917,122 storage-type dams and reservoirs

Improved the farm land of the Nation with 232,760,415 tons of lime

Enriched the soil with 21,195,371 tons of superphosphate (20% P_2O_5 equiv.)

Established 231,972,655 acres of green manure and cover crops

Terraced 16,944,432 acres of farm land

Farmed 126,811,567 acres of farm land on the contour

Field stripped 71,643,300 acres to control wind and water erosion

Planted 784,023 acres of trees

ACP PRACTICES



Control -

← Wind Erosion

Check -

Sheet Erosion →

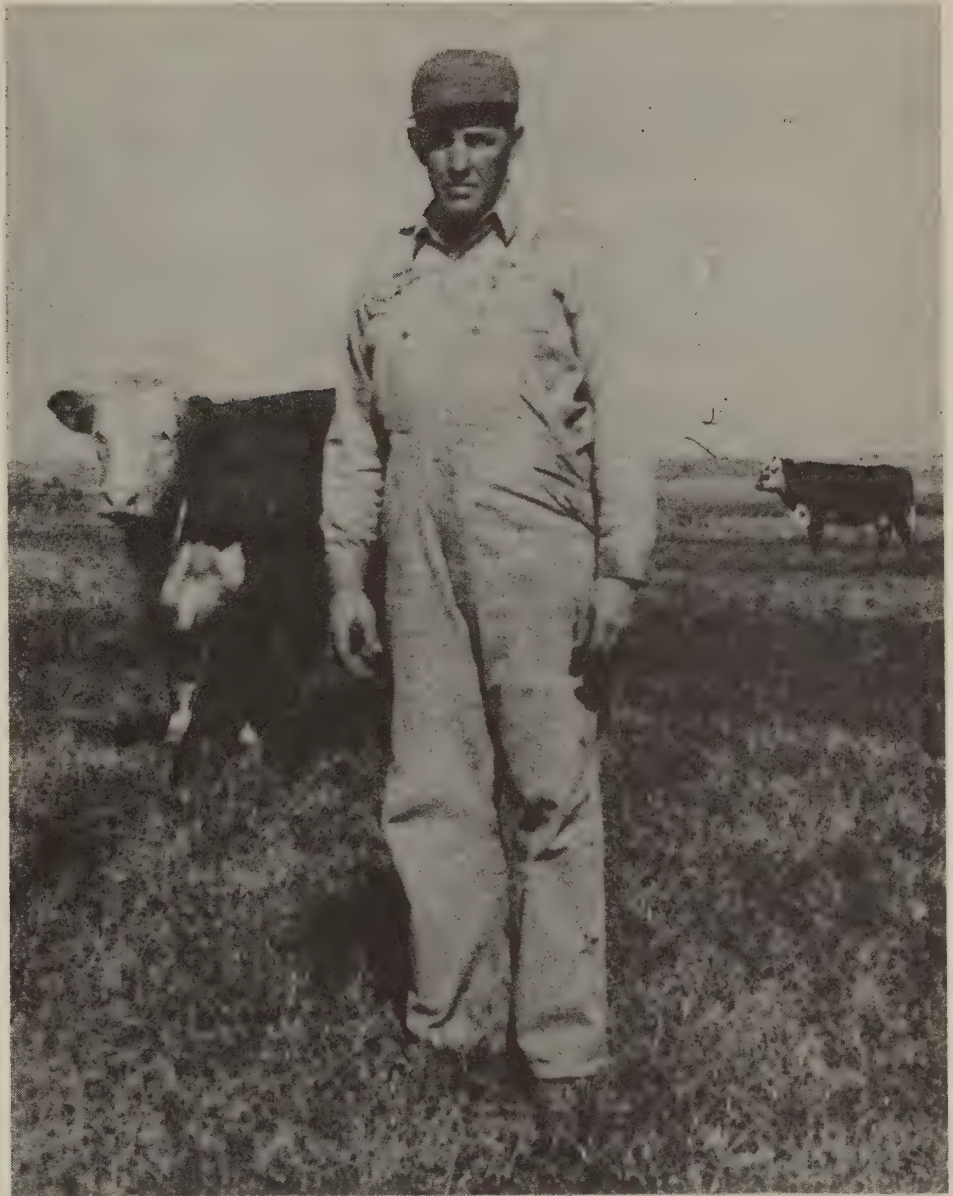


And stop

← Gullies

ACP PRACTICES

Charles F. Hixon--Logan County, Oklahoma farmer who has been using ACP Practices to restore a run-down farm to productivity.



Stock-water pond on Charles F. Nixon farm.

The individual farmers have benefited from these conservation practices. Their farms are more productive. But the Nation has benefited even more. More than 80 percent of our people live in towns and cities and all depend on our farms for food and fiber. They all depend on what each farmer can produce in excess of the needs for himself and family.

The pattern of American agriculture has changed tremendously in recent years. Conservation farming has been introduced and adopted by millions of farmers all over the country. The American people and the American farmer have found a way to work together to build a better and stronger Nation.

The increase in the productivity of the land has resulted in a per capita consumption of food 11 percent greater than the 1935-39 average. Not only is the average person eating more but he is eating better -- more meat, milk, eggs, fruits and vegetables in his diet.

Although population has increased about 23 million since 1935, the 150 million people now have more and better food than the 127 million did then. Farm production has increased nearly 40 percent. Per acre yields are up more than 50 percent from the 1935 level.

Favorable weather, more efficient machinery, improved varieties and strains of farm crops, and more effective fungicides and insecticides have all contributed to the progress in agricultural production. But a single one of these by itself could not have produced the astounding results of the past 10 years. Basic to all of them is productive land.

Program Developments

In its continuing effort for more effective use of the ACP and other programs on the individual farms of the country, the Agricultural Conservation Programs Branch of PMA launched the "Farmers' and Ranchers' Program" in 1949. The purpose of this program is to determine the conservation needs of the individual farm and then, with the farmer, work out a program to more directly meet these needs.

During 1949, the "Farmers' and Ranchers' Conservation Program" was in operation in 11 counties in 9 States. States and counties participating in this program were:

| <u>State</u> | <u>County</u> |
|--------------|-------------------------------|
| Utah | Washington |
| Colorado | Morgan |
| Texas | Tom Green, Milam, Nacogdoches |
| Nebraska | Franklin |
| South Dakota | Davison |
| Mississippi | Neshoba |
| Tennessee | Lawrence |
| Pennsylvania | Butler |
| New Jersey | Cumberland |

In each of these counties, community committeemen visited the farmers in each of their communities and with the farmer went over each field of the farm. Together they determined the conservation needs of the farm. Then the farmer's plans for meeting these needs were written down and a program of action to carry out his plan worked out.

With this information the County and Community committees are better prepared to make more effective use of the Agricultural Conservation Program as well as other aids to the farmer.

Administration

As in other years since 1936, during October, November, and December of 1948, elections were held in each of the more than 25 thousand designated agricultural communities in the country. At these elections, a community committee was elected to serve in 1949. At the same time delegates were named to attend a county convention for the purpose of electing a county committee. These committeemen took office January 1, 1949.

A total of 78,927 community committeemen and a total of 9,090 county committeemen were elected. In addition, in each community and county, alternates were elected to replace regular committeemen in the event they were unable to serve.

In addition to administering the Agricultural Conservation Program, these committeemen were responsible for determining acreage allotments for individual farms, making price-support loans and purchases, conducting marketing quota referendums, and providing farmers with information on the various programs affecting them.

Although these committeemen average only a few days a year in actual program work, for which they receive pay, they were on call 24 hours a day.

At the State level a committee appointed by the Secretary of Agriculture administered these programs. State committeemen also are bona fide farmers, with the Director of Extension Service as ex-officio member.

Pooling Agreements

The 1949 program provided for groups of farmers to cooperate in "pooling agreements" to carry out soil and water conservation practices of mutual interest. Such projects were carried out on the same share-the-cost basis applying on individual farms.

Under this provision a total of 1,070 such pooling agreements were made and projects completed under the 1949 program. A total of 10,121 farmers participated in these projects. These projects were carried out in 229 counties in 22 States.

FARMER ADMINISTRATION



Soil and water conservation practices essential to the welfare of all the people in the country are carried out by individual farmers on their own farms.



Farmers are elected by their neighbors to serve on county and community committees.

Projects included such conservation measures as constructing irrigation canals, lining canals to prevent seepage, installing drainage systems, and the building of dams and reservoirs.

Materials and Services

To encourage more conservation, materials and services to be used in approved conservation practices were furnished to farmers on a share-the-cost basis. The materials and services were furnished in some instances under contract, the Government standing the part of the cost representing the Government's share of the practice on which the services or materials were to be used. In other instances the services and materials were furnished through local trade channels. A purchase order was used in these cases. Under this arrangement, the farmer obtained a purchase order from the County PMA Committee to be used in the purchase of materials or to pay for part of the cost of approved services. The purchase order was for the Government's share of the cost.

Materials included: Grass and legume seed, lime, phosphate, pre-fabricated structures.

Services were such as the construction of terraces, building dams, leveling land, and laying out drainage systems.

Naval Stores

The conservation carried on under the Naval Stores Program becomes increasingly more important as defense production is stepped up. Under the 1949 program, 2,451 cooperating farmers were given assistance in carrying out practices to protect and conserve our source of gum naval stores.

This program is administered by the Forest Service for the Production and Marketing Administration under regulations similar to regulations governing other PMA programs.

Looking to the Future

Despite the progress that has been made, conservation of our soil and water resources was never more vital to the welfare of the country than it is today. There must be enough food. Farm production cannot be allowed to break down. As defense production is increased more food will be needed. Military forces and industry must be backed up with stock piles of food and fiber. The Nation cannot risk shortages of such essentials. But these products will not be forthcoming unless the soil remains productive.

This all means continued high level production -- much greater production of some commodities.

But land is limited. It is significant to note that in 1919 farmers of this country harvested crops from 364 million acres. Twenty years later, 1949, the acreage harvested was still 364 million acres. In 1919 there was a population of 105 million, in 1949 it was 149 million.

Financial Report

On 1949 Agricultural Conservation Program
for Fiscal Year Ended June 30, 1950

Agricultural Conservation Program

Conservation payments:

| | |
|--------------------------------------|--------------------|
| 1949 State and Insular Program | \$223,573,000 |
| 1949 Naval Stores Program | 282,000 |
| Subtotal, payments to farmers | <u>223,855,000</u> |

Operating expenses:

| | |
|---|--------------------|
| PMA County Committees | 20,854,000 |
| State and National | <u>4,992,439</u> |
| Subtotal, Operating expenses | <u>25,846,439</u> |
| Other Program expenses, including transfers to cooperating agencies and cost of aerial photographs.. | 1,184,229 |
| Total, Agricultural Conservation Program | <u>250,885,668</u> |

Adjustment

| | |
|--|-------------------|
| Loans received from Commodity Credit Corporation and adjustments necessary to convert from program basis | <u>+6,157,771</u> |
|--|-------------------|

| | |
|---|-------------|
| Total appropriated for the Agricultural Conservation Program | 257,043,439 |
|---|-------------|

Table 1. -- Participation and estimated assistance under the
1949 Agricultural Conservation Program, by States

| State | Cropland | | | | Noncrop pasture | | | | Estimated: Average | |
|----------------|---|-----------------------------------|-----------------|---|-----------------------------------|-----------------|---|-----------------------------|--|--|
| | Partici- pating farms or ranches | On partici- pating farms | On all farms | Percent- age on partici- pating farms | On partici- pating farms | On all farms | Percent- age on partici- pating farms | Partici- pating farms | Estimated gross ACP assist- ance | Average assistance per partici- pant |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | Number | 1,000 acres | 1,000 acres | Percent | 1,000 acres | 1,000 acres | Percent | Number | 1,000 dollars | Dollars |
| Alabama | 66,978 | 5,366 | 9,033 | 59.4 | 1,193 | 2,123 | 56.2 | 72,351 | 7,486 | 103.47 |
| Alaska | 135 | 1 | 5 | 12.4 | 2 | 57 | 3.1 | 135 | 32 | 235.29 |
| Arizona | 2,984 | 609 | 1,257 | 48.4 | 21,727 | 38,798 | 56.0 | 3,147 | 1,179 | 374.64 |
| Arkansas | 81,778 | 6,615 | 10,236 | 64.6 | 732 | 1,171 | 62.5 | 87,374 | 5,603 | 64.13 |
| California | 18,630 | 3,153 | 10,516 | 30.0 | 6,342 | 26,045 | 24.3 | 19,079 | 4,850 | 254.19 |
| Colorado | 21,291 | 7,719 | 11,896 | 64.9 | 12,785 | 27,252 | 46.9 | 23,043 | 3,738 | 162.22 |
| Connecticut | 5,384 | 279 | 438 | 63.8 | 214 | 462 | 46.2 | 5,384 | 466 | 86.48 |
| Delaware | 4,353 | 435 | 591 | 73.5 | 8 | 11 | 71.8 | 4,883 | 384 | 78.61 |
| Florida | 23,735 | 1,526 | 2,701 | 56.5 | 6,562 | 10,859 | 60.4 | 24,809 | 2,179 | 87.84 |
| Georgia | 84,724 | 7,315 | 10,502 | 69.7 | 1,051 | 1,309 | 80.3 | 90,037 | 7,522 | 83.55 |
| Hawaii | 818 | 167 | 295 | 56.4 | 1,072 | 1,772 | 60.5 | 821 | 105 | 128.33 |
| Idaho | 13,323 | 2,367 | 4,857 | 48.7 | 3,113 | 12,661 | 24.6 | 15,123 | 1,583 | 104.65 |
| Illinois | 127,191 | 16,213 | 25,289 | 64.1 | 1,489 | 2,737 | 54.4 | 148,441 | 10,005 | 67.40 |
| Indiana | 93,967 | 8,418 | 14,729 | 57.2 | 639 | 1,059 | 60.4 | 109,663 | 5,532 | 50.44 |
| Iowa | 154,567 | 20,118 | 26,065 | 77.2 | 3,567 | 5,034 | 70.9 | 196,878 | 10,363 | 52.64 |
| Kansas | 48,254 | 14,042 | 29,720 | 47.2 | 7,623 | 19,052 | 40.0 | 52,273 | 7,870 | 150.56 |
| Kentucky | 138,915 | 9,963 | 12,107 | 82.3 | 2,175 | 2,759 | 78.8 | 141,002 | 6,965 | 49.40 |
| Louisiana | 31,982 | 3,276 | 5,995 | 54.6 | 626 | 1,082 | 57.9 | 34,840 | 4,027 | 115.59 |
| Maine | 9,635 | 738 | 1,219 | 60.5 | 273 | 473 | 57.7 | 9,635 | 889 | 92.24 |
| Maryland | 16,251 | 1,492 | 2,402 | 62.1 | 221 | 372 | 59.5 | 17,294 | 1,532 | 88.57 |
| Massachusetts | 7,063 | 287 | 565 | 50.8 | 239 | 435 | 54.9 | 7,063 | 575 | 81.42 |
| Michigan | 94,909 | 7,225 | 11,743 | 61.5 | 423 | 737 | 57.4 | 104,045 | 5,407 | 51.97 |
| Minnesota | 130,702 | 15,853 | 22,277 | 71.2 | 1,977 | 3,168 | 62.4 | 140,650 | 7,075 | 50.30 |
| Mississippi | 62,907 | 5,600 | 8,027 | 69.8 | 1,723 | 3,357 | 51.3 | 68,255 | 7,256 | 106.31 |
| Missouri | 107,082 | 10,988 | 19,213 | 57.2 | 3,836 | 7,270 | 52.8 | 115,104 | 8,458 | 73.48 |
| Montana | 15,909 | 8,665 | 13,177 | 65.8 | 19,480 | 51,608 | 37.7 | 16,425 | 3,602 | 219.32 |
| Nebraska | 74,958 | 12,517 | 20,914 | 59.9 | 12,129 | 25,779 | 47.0 | 91,793 | 6,655 | 72.51 |
| Nevada | 1,211 | 266 | 559 | 47.7 | 3,008 | 5,647 | 53.3 | 1,227 | 235 | 191.61 |
| New Hampshire | 5,213 | 215 | 436 | 49.3 | 185 | 231 | 80.2 | 5,213 | 444 | 85.08 |
| New Jersey | 11,253 | 871 | 1,097 | 79.4 | 105 | 144 | 72.8 | 11,587 | 891 | 76.89 |
| New Mexico | 8,954 | 1,977 | 2,999 | 65.9 | 21,335 | 45,297 | 47.1 | 9,781 | 1,824 | 186.44 |
| New York | 65,311 | 5,337 | 7,838 | 68.1 | 3,213 | 4,989 | 64.4 | 65,657 | 5,611 | 85.45 |
| North Carolina | 103,387 | 4,678 | 8,438 | 55.4 | 832 | 1,388 | 59.9 | 108,899 | 7,544 | 69.27 |
| North Dakota | 50,992 | 21,161 | 25,404 | 83.3 | 9,984 | 13,597 | 73.4 | 52,368 | 5,349 | 102.14 |
| Ohio | 119,159 | 8,919 | 13,814 | 64.6 | 2,201 | 4,156 | 53.0 | 151,869 | 6,779 | 44.64 |
| Oklahoma | 68,551 | 8,212 | 18,064 | 45.5 | 8,081 | 16,217 | 49.8 | 72,382 | 8,296 | 114.62 |
| Oregon | 13,014 | 2,493 | 5,129 | 48.6 | 5,137 | 13,719 | 37.4 | 13,196 | 2,223 | 168.49 |
| Pennsylvania | 66,288 | 4,482 | 7,531 | 59.5 | 1,685 | 2,756 | 61.1 | 68,433 | 6,294 | 91.97 |
| Puerto Rico | 27,179 | 541 | 885 | 61.1 | 598 | 733 | 81.7 | 28,278 | 687 | 24.31 |
| Rhode Island | 927 | 37 | 68 | 54.2 | 19 | 46 | 41.7 | 927 | 84 | 90.51 |
| South Carolina | 52,740 | 3,846 | 5,636 | 68.2 | 440 | 629 | 70.0 | 54,332 | 3,764 | 69.27 |
| South Dakota | 43,020 | 12,309 | 17,304 | 71.1 | 17,221 | 27,744 | 62.1 | 45,575 | 5,492 | 120.51 |
| Tennessee | 100,656 | 6,458 | 9,947 | 64.9 | 1,313 | 2,250 | 58.4 | 103,608 | 6,897 | 66.56 |
| Texas | 131,045 | 19,316 | 41,657 | 46.4 | 56,579 | 109,738 | 51.6 | 139,029 | 19,339 | 139.10 |
| Utah | 9,150 | 885 | 1,822 | 48.6 | 3,245 | 13,264 | 24.5 | 7,872 | 1,175 | 149.24 |
| Vermont | 10,122 | 723 | 1,044 | 69.3 | 813 | 1,079 | 75.4 | 10,122 | 1,275 | 125.94 |
| Virgin Islands | 101 | 1 | 9 | 8.7 | 15 | 45 | 32.7 | 101 | 22 | 221.75 |
| Virginia | 68,098 | 3,694 | 5,665 | 65.2 | 1,880 | 2,844 | 66.1 | 70,326 | 4,737 | 67.36 |
| Washington | 19,407 | 5,820 | 7,430 | 78.3 | 5,196 | 9,007 | 57.7 | 20,035 | 2,621 | 130.82 |
| West Virginia | 33,880 | 1,119 | 2,019 | 55.4 | 1,872 | 3,237 | 57.8 | 33,889 | 1,997 | 58.94 |
| Wisconsin | 132,558 | 10,334 | 13,155 | 78.6 | 2,766 | 3,633 | 76.1 | 144,942 | 7,196 | 49.65 |
| Wyoming | 6,150 | 1,503 | 2,297 | 65.4 | 15,462 | 30,158 | 51.3 | 6,564 | 1,459 | 222.28 |
| U. S. Total | 2,586,791 | 296,143 | 476,019 | 62.2 | 274,408 | 559,988 | 49.0 | 2,825,759 | 223,573 | 79.12 |
| N. Stores 1/ | --- | --- | --- | --- | --- | --- | --- | 2,451 | 282 | 115.14 |
| Total | 2,586,791 | 296,143 | 476,019 | 62.2 | 274,408 | 559,988 | 49.0 | 2,828,210 | 223,855 | 79.15 |

1/ Includes Alabama, Florida, Georgia, Mississippi and South Carolina

Totals are rounded and percentages are computed from complete data.

Table 2. -- Selected Conservation practices carried out under the
1949 Agricultural Conservation Program, by States

| State | Application of liming materials 1/ | Phosphate materials for con- serving uses 2/ | Potash materials for con- serving uses 3/ | Protective and green manure crops 4/ | Con- struction of standard terraces | Diversion & spreader terraces and ditches | Contour farming Inter- tilled crops | Close- sown crops |
|----------------|---|--|---|--|---|---|--|-------------------------|
| | Tons | Tons | Tons | Acres | 1,000 Lin. ft. | Rods | Acres | Acres |
| Alabama | 161,323 | 142,454 | 14,867 | 1,280,377 | 27,593 | -- | -- | -- |
| Alaska | -- | 17 | 1 | 445 | -- | -- | -- | -- |
| Arizona | -- | 4,784 | -- | 6,762 | 107 | 17,118 | -- | -- |
| Arkansas | 80,101 | 70,833 | 1,499 | 895,635 | 9,285 | -- | 181,811 | -- |
| California | 17,646 | 21,365 | -- | 71,467 | 59 | 22,213 | 10 | 1,701 |
| Colorado | -- | 9,806 | 65 | 51,327 | 1,233 | 75,730 | 45,545 | 33,832 |
| Connecticut | 57,687 | 13,297 | 2,344 | 34,317 | -- | 1,016 | -- | -- |
| Delaware | 44,026 | 3,845 | -- | 69,075 | -- | -- | -- | -- |
| Florida | 144,867 | 70,680 | 3,668 | 362,144 | 2,361 | -- | -- | -- |
| Georgia | 256,564 | 133,025 | 12,502 | 1,329,126 | 15,098 | -- | -- | -- |
| Hawaii | 429 | 66 | 2 | 501 | 50 | 9,831 | 2,583 | -- |
| Idaho | -- | 13,526 | -- | 64,631 | -- | 6,395 | 1,570 | 43,943 |
| Illinois | 3,906,387 | 301,301 | 9,003 | 590,434 | 1,672 | -- | 170,319 | 96,187 |
| Indiana | 2,131,324 | 80,596 | 12,898 | 236,124 | 2,430 | 7,566 | 38,859 | 33,751 |
| Iowa | 3,080,171 | 136,477 | 5,458 | 1,842,184 | 12,409 | 40,184 | 1,015,906 | -- |
| Kansas | 704,199 | 44,652 | -- | 145,715 | 52,933 | 184,968 | 167,432 | 399,355 |
| Kentucky | 927,302 | 162,026 | 2,671 | 878,458 | 2,421 | 18,808 | 13,399 | 13,399 |
| Louisiana | 68,272 | 36,532 | 2,656 | 475,073 | 8,174 | -- | -- | -- |
| Maine | 75,738 | 15,564 | 2,832 | 3,394 | 9,515 | 9,515 | 6,084 | 4,055 |
| Maryland | 219,641 | 18,315 | 1,349 | 76,241 | -- | 3,198 | -- | -- |
| Massachusetts | 49,299 | 15,996 | 3,560 | 35,569 | 6 | 2,232 | 135 | 23 |
| Michigan | 688,358 | 110,637 | 19,213 | 634,586 | -- | 1,742 | 23,293 | 40,898 |
| Minnesota | 369,573 | 109,901 | 7,441 | 994,226 | 55 | -- | 20,586 | 19,721 |
| Mississippi | 117,513 | 96,530 | 11,755 | 883,018 | 15,412 | 9,312 | -- | -- |
| Missouri | 2,780,644 | 119,384 | 13,652 | 351,867 | 17,112 | 115,834 | 16,420 | 3,382 |
| Montana | 73 | 5,394 | -- | 36,789 | 124 | 130,376 | 12,725 | 6,352 |
| Nebraska | 4,466 | 9,127 | -- | 833,535 | 28,519 | 107,038 | 676,805 | 219,883 |
| Nevada | -- | 1,028 | -- | 481 | -- | 5,143 | -- | -- |
| New Hampshire | 32,812 | 10,671 | 1,494 | 1,499 | -- | -- | -- | -- |
| New Jersey | 152,827 | 15,511 | 4,668 | 201,780 | -- | 8,311 | 2,191 | -- |
| New Mexico | -- | 8,844 | -- | 2,503 | 1,757 | 49,730 | 136,146 | 42,737 |
| New York | 661,338 | 129,849 | 1,507 | 138,575 | 7 | 46,784 | -- | -- |
| North Carolina | 360,222 | 101,883 | 18,621 | 575,021 | 17,790 | -- | 2,007 | -- |
| North Dakota | -- | 2,756 | -- | 93,391 | -- | 334 | 7,518 | 12,797 |
| Ohio | 1,903,925 | 171,292 | 36,558 | 303,418 | 325 | 6,620 | 9,181 | 8,785 |
| Oklahoma | 371,683 | 40,886 | 4 | 687,655 | 48,599 | 173,940 | 535,162 | 750,359 |
| Oregon | 53,114 | 5,199 | -- | 52,197 | -- | 60,633 | -- | 5,710 |
| Pennsylvania | 1,176,226 | 75,932 | 1,872 | 127,108 | -- | 21,352 | -- | -- |
| Puerto Rico | 10,504 | 2,084 | 753 | 14,782 | 76 | 7,580 | -- | -- |
| Rhode Island | 7,070 | 1,957 | 334 | 4,837 | 2 | 24 | -- | -- |
| South Carolina | 131,475 | 70,231 | 1,323 | 441,899 | 14,902 | -- | -- | -- |
| South Dakota | -- | 3,079 | -- | 241,693 | 1,071 | 33,002 | 121,856 | 258,599 |
| Tennessee | 654,719 | 148,785 | 5,472 | 874,124 | 12,079 | -- | 2,010 | -- |
| Texas | 65,978 | 212,914 | 2,499 | 1,087,953 | 146,008 | 439,616 | -- | 404,300 |
| Utah | -- | 8,095 | -- | 8,808 | 12 | 11,894 | -- | 1,505 |
| Vermont | 91,461 | 44,307 | 4,557 | -- | -- | 333 | -- | -- |
| Virgin Islands | -- | -- | -- | -- | -- | -- | -- | -- |
| Virginia | 740,874 | 121,239 | 10,063 | 306,620 | 864 | -- | -- | -- |
| Washington | 24,919 | 15,835 | 1,121 | 89,839 | 302 | 1,860 | -- | 2,343 |
| West Virginia | 272,662 | 47,064 | 1,227 | 5,722 | -- | 6,399 | -- | -- |
| Wisconsin | 1,833,473 | 121,281 | 37,471 | 135,129 | 2,157 | 5,772 | 125,449 | 133,675 |
| Wyoming | 3,072 | 2,940 | 8 | 19,413 | 324 | 41,490 | 1,247 | 2,283 |
| Total | 24,433,957 | 3,109,792 | 256,988 | 17,597,467 | 443,328 | 1,683,893 | 3,336,249 | 2,539,575 |

1/ Ground limestone equivalent.

2/ 20 percent superphosphate equivalent.

3/ 50 percent muriate equivalent.

4/ Includes green manure and cover crops, permanent cover on steep slopes and permanent sod cover in orchards.

Table 2. -- Selected conservation practices carried out under the
1949 Agricultural Conservation Program, by States (Continued)

| State | Strip- cropping 5/ | Sod waterways | Protecting summer fallow | Crop residue management 6/ | Drainage Open ditches | Enclosed drains | Irrigation ditches and dikes | Leveling for irriga- tion |
|----------------|--------------------------|------------------|--------------------------------|-------------------------------------|-----------------------------|--------------------|---------------------------------------|------------------------------------|
| | Acres | Sq. ft. | Acres | Acres | Acres | Acres | Rods | Acres |
| Alabama | -- | -- | -- | -- | 46,317 | -- | -- | -- |
| Alaska | -- | -- | -- | -- | -- | -- | -- | -- |
| Arizona | 518 | -- | -- | -- | -- | -- | 25,230 | 26,482 |
| Arkansas | -- | 1,971 | -- | -- | 187,054 | -- | 31,296 | 34,218 |
| California | 29,850 | 573 | 108,906 | 37,096 | 48,832 | 17,899 | 26,419 | 190,629 |
| Colorado | 154,864 | 1,725 | 2,089,994 | 688,385 | 31,551 | 3,577 | 290,624 | 59,071 |
| Connecticut | 97 | 77 | -- | -- | 594 | -- | -- | -- |
| Delaware | -- | -- | -- | -- | 6,201 | -- | -- | -- |
| Florida | -- | -- | -- | 29 | 89,676 | -- | -- | -- |
| Georgia | 35 | -- | -- | -- | 23,913 | -- | -- | -- |
| Hawaii | -- | 72 | -- | -- | 103 | -- | -- | -- |
| Idaho | 3,223 | 7,262 | -- | -- | 29,525 | 1,087 | 100,117 | 39,880 |
| Illinois | 5,361 | 624,184 | -- | -- | 17,869 | 14,778 | -- | -- |
| Indiana | 999 | 88,440 | -- | 21,242 | 53,033 | 37,512 | -- | -- |
| Iowa | 12,143 | 546,790 | -- | -- | 37,468 | 56,680 | -- | -- |
| Kansas | 61,300 | 141,745 | 2,340,464 | 425,714 | 29,154 | -- | -- | 3,843 |
| Kentucky | -- | 1,755 | -- | -- | 28,804 | 1,361 | -- | -- |
| Louisiana | -- | -- | -- | -- | 302,599 | -- | -- | 27,085 |
| Maine | 860 | 6,604 | -- | -- | 385 | 184 | -- | -- |
| Maryland | 4,087 | 41 | -- | -- | 4,783 | 13 | -- | -- |
| Massachusetts | 141 | 252 | -- | -- | 2,852 | 334 | -- | -- |
| Michigan | 20,938 | 17,175 | -- | -- | 305,511 | 47,126 | -- | -- |
| Minnesota | 309,008 | 38,906 | 198,909 | -- | 250,142 | 13,548 | -- | -- |
| Mississippi | -- | -- | -- | -- | 509,502 | -- | -- | -- |
| Missouri | -- | 53,460 | -- | -- | 176,045 | -- | -- | -- |
| Montana | 3,786,820 | 5,147 | 523,480 | -- | 20,492 | 219 | 145,434 | 11,196 |
| Nebraska | 473,952 | 178,743 | 1,301,998 | 21,838 | 42,799 | 335 | -- | 12,706 |
| Nevada | -- | -- | -- | -- | 3,640 | -- | 57,961 | 10,364 |
| New Hampshire | -- | -- | -- | -- | 508 | 24 | -- | -- |
| New Jersey | 683 | 677 | -- | -- | 2,505 | 1,206 | -- | -- |
| New Mexico | 27,582 | -- | 200,450 | 431,664 | 703 | 27 | 65,996 | 18,002 |
| New York | 4,100 | 342 | -- | -- | 28,336 | 12,821 | -- | -- |
| North Carolina | 1,549 | 19,019 | -- | -- | 95,457 | 18,372 | -- | -- |
| North Dakota | 1,205,553 | 2,577 | 3,897,679 | 1,533,481 | 145,215 | -- | -- | -- |
| Ohio | 24,505 | 77,783 | -- | 9,605 | 28,181 | 158,266 | -- | -- |
| Oklahoma | 18,214 | 33,467 | 166,166 | 138,001 | 897 | -- | -- | -- |
| Oregon | 999 | 13,281 | 5,121 | 365,919 | 117,722 | 15,482 | 68,479 | 30,332 |
| Pennsylvania | 59,344 | 4,856 | -- | -- | 11,860 | 20,295 | -- | -- |
| Puerto Rico | -- | 251 | -- | -- | -- | -- | -- | -- |
| Rhode Island | 15 | 45 | -- | -- | 68 | -- | -- | -- |
| South Carolina | -- | -- | -- | -- | 66,336 | 4,039 | -- | -- |
| South Dakota | 260,590 | 18,089 | 258,263 | 1,992,479 | 88,450 | 20 | -- | 1,154 |
| Tennessee | 70 | 2,207 | -- | -- | 68,541 | -- | -- | -- |
| Texas | 35,807 | 113,300 | 215,931 | 962,338 | 82,010 | 10,368 | 84,184 | 154,957 |
| Utah | -- | 774 | 53,833 | -- | 5,778 | 2,680 | 124,752 | 16,934 |
| Vermont | -- | -- | -- | -- | 3,741 | 63 | -- | -- |
| Virgin Islands | -- | -- | -- | -- | -- | -- | -- | -- |
| Virginia | 5,323 | 719 | -- | -- | 17,885 | 1,995 | -- | -- |
| Washington | 143 | 14,671 | 1,714,026 | 1,051,438 | 28,581 | 10,106 | 9,908 | 6,948 |
| West Virginia | 1,796 | -- | -- | -- | 95 | 16 | -- | -- |
| Wisconsin | 248,039 | 370,041 | -- | -- | 188,427 | 26,884 | -- | -- |
| Wyoming | 304,943 | 238 | 2,397 | 12,499 | 10,578 | 524 | 214,458 | 9,793 |
| Total | 7,063,451 | 2,387,259 | 13,077,617 | 7,691,728 | 3,240,718 | 477,841 | 1,244,858 | 653,594 |

5/ Includes contour and field stripcropping.

6/ Includes stubble mulch and leaving stalks or stubble.

Table 2. -- Selected conservation practices carried out under the
1949 Agricultural Conservation Program, by States (Continued)

| State | Water facilities | | | | | | | | |
|----------------|------------------|------------|---------|--------|---------|-----------|----------|------------|--|
| | Seeding | Grazing | Reser- | | | | | Firebreaks | |
| | Pasture | land | voirs | | | | | to | |
| | and | management | and | Wells | Springs | Mowing | Planting | protect | |
| | rangeland | 7/ | dams 8/ | | and | in | trees | farm | |
| | | | | | seeps | pasture | | woodland | |
| | Acres | Acres | Number | Number | Number | Acres | Acres | Rods | |
| Alabama | 98,976 | -- | 15 | -- | -- | 61,275 | 7,085 | -- | |
| Alaska | 19 | -- | -- | -- | -- | -- | -- | -- | |
| Arizona | 1,719 | 229,360 | 615 | 58 | 22 | -- | -- | -- | |
| Arkansas | 502,340 | -- | 2,395 | -- | 73 | 694,093 | -- | -- | |
| California | 94,166 | 249,461 | 1,056 | 210 | 300 | 2,397 | 197 | 20,485 | |
| Colorado | 97,016 | 107,024 | 1,326 | 507 | 94 | 4,240 | 295 | -- | |
| Connecticut | 247 | -- | -- | -- | -- | -- | 63 | -- | |
| Delaware | 2,194 | -- | -- | -- | -- | -- | 7 | -- | |
| Florida | 124,917 | -- | 18 | -- | -- | 312,574 | 12,790 | -- | |
| Georgia | 473,617 | -- | 224 | -- | -- | 330,588 | 14,449 | 7,243,152 | |
| Hawaii | 10,122 | -- | 2 | -- | -- | 30,498 | 27 | -- | |
| Idaho | 28,335 | 516,833 | 205 | 6 | 41 | 10 | 9 | 667 | |
| Illinois | 12,266 | -- | 151 | -- | -- | -- | 240 | -- | |
| Indiana | 42,723 | -- | 575 | 14 | -- | 45,780 | 1,251 | -- | |
| Iowa | 46,296 | -- | 9,344 | -- | -- | -- | 2 | -- | |
| Kansas | 27,373 | 728,476 | 3,627 | 477 | -- | 293,817 | 422 | -- | |
| Kentucky | 1,100,507 | -- | 1,578 | -- | -- | 314,383 | 1,505 | -- | |
| Louisiana | 166,745 | -- | 1,233 | 74 | -- | 305,530 | 3,939 | -- | |
| Maine | -- | -- | 15 | -- | -- | -- | 51 | -- | |
| Maryland | 6,694 | -- | -- | -- | -- | 10,050 | 7 | 182 | |
| Massachusetts | -- | -- | 58 | -- | -- | -- | 84 | -- | |
| Michigan | 31,355 | -- | -- | -- | -- | -- | 6,388 | -- | |
| Minnesota | 42,562 | -- | -- | -- | -- | -- | 2,622 | -- | |
| Mississippi | 118,820 | -- | 8,912 | 2 | -- | 181,555 | 3,897 | 63,152 | |
| Missouri | 28,700 | -- | 3,611 | -- | -- | -- | 650 | -- | |
| Montana | 46,893 | 548,481 | 1,942 | 367 | 170 | -- | 88 | 848 | |
| Nebraska | 74,001 | -- | 13,182 | 716 | 8 | 136,235 | 6,276 | -- | |
| Nevada | 8,338 | 8,260 | 222 | 28 | 10 | -- | -- | -- | |
| New Hampshire | -- | -- | -- | -- | -- | -- | -- | -- | |
| New Jersey | 6,817 | -- | -- | -- | -- | 3,141 | 50 | -- | |
| New Mexico | 9,090 | -- | 977 | 408 | 32 | -- | -- | -- | |
| New York | 36,915 | -- | 535 | -- | -- | 31,119 | 6,047 | 364 | |
| North Carolina | 167,299 | -- | 396 | -- | -- | 3 | 750 | 24,424 | |
| North Dakota | 14,608 | 2,718,144 | 613 | 209 | 63 | 23,967 | 3,829 | -- | |
| Ohio | 28,230 | -- | 567 | -- | -- | 368,242 | 2,837 | -- | |
| Oklahoma | 304,184 | -- | 8,677 | 242 | -- | 455,907 | 3 | -- | |
| Oregon | 78,811 | 33,479 | 702 | 49 | 49 | -- | 4 | 101,576 | |
| Pennsylvania | 32,521 | -- | 694 | -- | -- | 1,628 | 2,186 | -- | |
| Puerto Rico | 18,662 | -- | -- | -- | -- | 340,966 | 111 | -- | |
| Rhode Island | -- | -- | 12 | -- | -- | -- | -- | -- | |
| South Carolina | 49,778 | -- | -- | -- | -- | -- | 6,512 | 72,061 | |
| South Dakota | 55,180 | -- | 5,639 | 227 | 221 | 95,890 | 5,486 | -- | |
| Tennessee | 148,705 | -- | 989 | -- | -- | -- | 1,366 | -- | |
| Texas | 623,431 | -- | 26,209 | 1,503 | 1 | 778,659 | 1,677 | 5,273 | |
| Utah | 36,808 | 16,601 | 1,123 | 46 | 17 | -- | 22 | -- | |
| Vermont | 2,641 | -- | -- | -- | -- | -- | 75 | -- | |
| Virgin Islands | 358 | -- | 3 | 11 | -- | -- | -- | -- | |
| Virginia | 46,473 | -- | 70 | -- | -- | 19,076 | 165 | -- | |
| Washington | 80,904 | 2,564,767 | 97 | 12 | 54 | 73,348 | 19 | -- | |
| West Virginia | -- | -- | 141 | -- | 4 | 45,067 | 1 | -- | |
| Wisconsin | 57,131 | -- | 359 | -- | -- | 193,196 | 1,870 | -- | |
| Wyoming | 50,488 | 369,244 | 1,581 | 256 | 74 | -- | 219 | -- | |
| Total | 5,035,975 | 8,090,130 | 99,690 | 5,422 | 1,233 | 5,153,234 | 95,573 | 7,532,184 | |

7/ In addition to "grazing land management," deferred grazing was carried out as follows: South Dakota, 11,833 acres; Nebraska, 976,121 acres; Oklahoma, 136,013 acres; Texas, 1,195,283 acres; Nevada, 110 acres; Oregon 26,208 acres; California, 17,205 acres; Hawaii, 4,852 acres.

8/ Includes reservoirs and dams for livestock, for erosion control (storage type), and for irrigation.

